

Paras

CRF Errors Corrected by the STIC System Branch

Serial Number: 02/479,467A

CRF Processing Date: 9/26/2000
Edited by: [Signature]
Verified by: [Signature] (STIC Staff)

ENTERED

RECEIVED

OCT 04 2000

TECH CENTER 1600/2900

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☒ Deleted extra, invalid, headings used by an applicant, specifically:
duplicate C1407 and C1417
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☒ Other: Sequence 2 - fixed amino acid numbering

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

1632

RAW SEQUENCE LISTING

DATE: 09/26/2000

PATENT APPLICATION: US/09/479,467A

TIME: 15:01:58

Input Set : A:\2919bseq.001

Output Set: N:\CRF3\09262000\I479467A.raw

Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: Sternberg, Paul W.
 4 Barr, Maureen M.
 6 <120> TITLE OF INVENTION: POLYCYSTIC KIDNEY DISEASE GENE HOMOLOGS REQUIRED FOR MALE MATING
 7 BEHAVIOR IN NEMATODES AND ASSAYS BASED THEREON
 9 <130> FILE REFERENCE: 18021-2901B
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/479,467A
 C--> 12 <141> CURRENT FILING DATE: 2000-01-06
 14 <150> PRIOR APPLICATION NUMBER: 60/479,467
 15 <151> PRIOR FILING DATE: 2000-01-06
 17 <150> PRIOR APPLICATION NUMBER: 60/115,127
 18 <151> PRIOR FILING DATE: 1999-01-06
 20 <160> NUMBER OF SEQ ID NOS: 16
 22 <170> SOFTWARE: PatentIn Ver. 2.0

ERRORED SEQUENCES

1111 <210> SEQ ID NO: 2
 1112 <211> LENGTH: 4303
 1113 <212> TYPE: PRT
 1114 <213> ORGANISM: Homo sapiens PKD-1 protein
 1116 <400> SEQUENCE: 2
 1117 Met Pro Pro Ala Ala Pro Ala Arg Leu Ala Leu Gly Leu Gly
 1118 1 5 10 15
 1120 Leu Trp Leu Gly Ala Leu Ala Gly Gly Pro Gly Arg Gly Cys Gly Pro
 1121 20 25 30
 1123 Cys Glu Pro Pro Cys Leu Cys Gly Pro Ala Pro Gly Ala Ala Cys Arg
 1124 35 40 45
 1126 Val Asn Cys Ser Gly Arg Gly Leu Arg Thr Leu Gly Pro Ala Leu Arg
 1127 50 55 60
 1129 Ile Pro Ala Asp Ala Thr Glu Leu Asp Val Ser His Asn Leu Leu Arg
 1130 65 70 75 80
 1132 Ala Leu Asp Val Gly Leu Leu Ala Asn Leu Ser Ala Leu Ala Glu Leu
 1133 85 90 95
 1135 Asp Ile Ser Asn Asn Lys Ile Ser Thr Leu Glu Glu Gly Ile Phe Ala
 1136 100 105 110
 1138 Asn Leu Phe Asn Leu Ser Glu Ile Asn Leu Ser Gly Asn Pro Phe Glu
 1139 115 120 125
 1141 Cys Asp Cys Gly Leu Ala Trp Leu Pro Gln Trp Ala Glu Glu Gln Gln
 1142 130 135 140
 1144 Val Arg Val Val Gln Pro Glu Ala Ala Thr Cys Ala Gly Pro Gly Ser
 1145 145 150 155 160
 1147 Leu Ala Gly Gln Pro Leu Leu Gly Ile Pro Leu Leu Asp Ser Gly Cys
 1148 165 170 175
 1150 Gly Glu Glu Tyr Val Ala Cys Leu Pro Asp Asn Ser Ser Gly Thr Val
 1151 180 185 190
 1153 Ala Ala Val Ser Phe Ser Ala Ala His Glu Gly Leu Leu Gln Pro Glu

RAW SEQUENCE LISTING

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Input Set : A:\2919bseq.001

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1156 Ala Cys Ser Ala Phe Cys Phe Ser Thr Gly Gln Gly Leu Ala Ala Leu
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1159 Ser Glu Gln Gly Trp Cys Leu Cys Gly Ala Ala Gln Pro Ser Ser Ala
1160          225          230          235          240
1162 Ser Phe Ala Cys Leu Ser Leu Cys Ser Gly Pro Pro Ala Pro Pro Ala
1163          245          250          255
1165 Pro Thr Cys Arg Gly Pro Thr Leu Leu Gln His Val Phe Pro Ala Ser
1166          260          265          270
1168 Pro Gly Ala Thr Leu Val Gly Pro His Gly Pro Leu Ala Ser Gly Gln
1169          275          280          285
1171 Leu Ala Ala Phe His Ile Ala Ala Pro Leu Pro Val Thr Asp Thr Arg
1172          290          295          300
1174 Trp Asp Phe Gly Asp Gly Ser Ala Glu Val Asp Ala Ala Gly Pro Ala
1175          305          310          315          320
1177 Ala Ser His Arg Tyr Val Leu Pro Gly Arg Tyr His Val Thr Ala Val
1178          325          330          335
1180 Leu Ala Leu Gly Ala Gly Ser Ala Leu Leu Gly Thr Asp Val Gln Val
1181          340          345          350
1183 Glu Ala Ala Pro Ala Ala Leu Glu Leu Val Cys Pro Ser Ser Val Gln
1184          355          360          365
1186 Ser Asp Glu Ser Leu Asp Leu Ser Ile Gln Asn Arg Gly Gly Ser Gly
1187          370          375          380
1189 Leu Glu Ala Ala Tyr Ser Ile Val Ala Leu Gly Glu Glu Pro Ala Arg
1190          385          390          395          400
1192 Ala Val His Pro Leu Cys Pro Ser Asp Thr Glu Ile Phe Pro Gly Asn
1193          405          410          415
1195 Gly His Cys Tyr Arg Leu Val Val Glu Lys Ala Ala Trp Leu Gln Ala
1196          420          425          430
1198 Gln Glu Gln Cys Gln Ala Trp Ala Gly Ala Ala Leu Ala Met Val Asp
1199          435          440          445
1201 Ser Pro Ala Val Gln Arg Phe Leu Val Ser Arg Val Thr Arg Ser Leu
1202          450          455          460
1204 Asp Val Trp Ile Gly Phe Ser Thr Val Gln Gly Val Glu Val Gly Pro
1205          465          470          475          480
1207 Ala Pro Gln Gly Glu Ala Phe Ser Leu Glu Ser Cys Gln Asn Trp Leu
1208          485          490          495
1210 Pro Gly Glu Pro His Pro Ala Thr Ala Glu His Cys Val Arg Leu Gly
1211          500          505          510
1213 Pro Thr Gly Trp Cys Asn Thr Asp Leu Cys Ser Ala Pro His Ser Tyr
1214          515          520          525
1216 Val Cys Glu Leu Gln Pro Gly Gly Pro Val Gln Asp Ala Glu Asn Leu
1217          530          535          540
1219 Leu Val Gly Ala Pro Ser Gly Asp Leu Gln Gly Pro Leu Thr Pro Leu
1220          545          550          555          560
1222 Ala Gln Gln Asp Gly Leu Ser Ala Pro His Glu Pro Val Glu Val Met
1223          565          570          575
1225 Val Phe Pro Gly Leu Arg Leu Ser Arg Glu Ala Phe Leu Thr Thr Ala
1226          580          585          590

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1228 Glu Phe Gly Thr Gln Glu Leu Arg Arg Pro Ala Gln Leu Arg Leu Gln
1229          595          600          605
1231 Val Tyr Arg Leu Leu Ser Thr Ala Gly Thr Pro Glu Asn Gly Ser Glu
1232          610          615          620
1234 Pro Glu Ser Arg Ser Pro Asp Asn Arg Thr Gln Leu Ala Pro Ala Cys
1235          625          630          635          640
1237 Met Pro Gly Gly Arg Trp Cys Pro Gly Ala Asn Ile Cys Leu Pro Leu
1238          645          650          655
1240 Asp Ala Ser Cys His Pro Gln Ala Cys Ala Asn Gly Cys Thr Ser Gly
1241          660          665          670
1243 Pro Gly Leu Pro Gly Ala Pro Tyr Ala Leu Trp Arg Glu Phe Leu Phe
1244          675          680          685
1246 Ser Val Pro Ala Gly Pro Pro Ala Gln Tyr Ser Val Thr Leu His Gly
1247          690          695          700
1249 Gln Asp Val Leu Met Leu Pro Gly Asp Leu Val Gly Leu Gln His Asp
1250          705          710          715          720
1252 Ala Gly Pro Gly Ala Leu Leu His Cys Ser Pro Ala Pro Gly His Pro
1253          725          730          735
1255 Gly Pro Arg Ala Pro Tyr Leu Ser Ala Asn Ala Ser Ser Trp Leu Pro
1256          740          745          750
1258 His Leu Pro Ala Gln Leu Glu Gly Thr Trp Gly Cys Pro Ala Cys Ala
1259          755          760          765
1261 Leu Arg Leu Leu Ala Gln Arg Glu Gln Leu Thr Val Leu Leu Gly Leu
1262          770          775          780
1264 Arg Pro Asn Pro Gly Leu Arg Leu Pro Gly Arg Tyr Glu Val Arg Ala
1265          785          790          795          800
1267 Glu Val Gly Asn Gly Val Ser Arg His Asn Leu Ser Cys Ser Phe Asp
1268          805          810          815
1270 Val Val Ser Pro Val Ala Gly Leu Arg Val Ile Tyr Pro Ala Pro Arg
1271          820          825          830
1273 Asp Gly Arg Leu Tyr Val Pro Thr Asn Gly Ser Ala Leu Val Leu Gln
1274          835          840          845
1276 Val Asp Ser Gly Ala Asn Ala Thr Ala Thr Ala Arg Trp Pro Gly Gly
1277          850          855          860
1279 Ser Leu Ser Ala Arg Phe Glu Asn Val Cys Pro Ala Leu Val Ala Thr
1280          865          870          875          880
1282 Phe Val Pro Ala Cys Pro Trp Glu Thr Asn Asp Thr Leu Phe Ser Val
1283          885          890          895
1285 Val Ala Leu Pro Trp Leu Ser Glu Gly Glu His Val Val Asp Val Val
1286          900          905          910
1288 Val Glu Asn Ser Ala Ser Arg Ala Asn Leu Ser Leu Arg Val Thr Ala
1289          915          920          925
1291 Glu Glu Pro Ile Cys Gly Leu Arg Ala Thr Pro Ser Pro Glu Ala Arg
1292          930          935          940
1294 Val Leu Gln Gly Val Leu Val Arg Tyr Ser Pro Val Val Glu Ala Gly
1295          945          950          955          960
1297 Ser Asp Met Val Phe Arg Trp Thr Ile Asn Asp Lys Gln Ser Leu Thr
1298          965          970          975
1300 Phe Gln Asn Val Val Phe Asn Val Ile Tyr Gln Ser Ala Ala Val Phe

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1301          980          985          990
1303 Lys Leu Ser Leu Thr Ala Ser Asn His Val Ser Asn Val Thr Val Asn
1304          995          1000          1005
1306 Tyr Asn Val Thr Val Glu Arg Met Asn Arg Met Gln Gly Leu Gln Val
1307          1010          1015          1020
1309 Ser Thr Val Pro Ala Val Leu Ser Pro Asn Ala Thr Leu Ala Leu Thr
E--> 1310 025 1025 1030 1035 1040
1312 Ala Gly Val Leu Val Asp Ser Ala Val Glu Val Ala Phe Leu Trp Thr
1313          1045          1050          1055
1315 Phe Gly Asp Gly Glu Gln Ala Leu His Gln Phe Gln Pro Pro Tyr Asn
1316          1060          1065          1070
1318 Glu Ser Phe Pro Val Pro Asp Pro Ser Val Ala Gln Val Leu Val Glu
1319          1075          1080          1085
1321 His Asn Val Thr His Thr Tyr Ala Ala Pro Gly Glu Tyr Leu Leu Thr
1322          1090          1095          1100
1324 Val Leu Ala Ser Asn Ala Phe Glu Asn Leu Thr Gln Gln Val Pro Val
E--> 1325 105 1110 1115 1120
1327 Ser Val Arg Ala Ser Leu Pro Ser Val Ala Val Gly Val Ser Asp Gly
1328          1125          1130          1135
1330 Val Leu Val Ala Gly Arg Pro Val Thr Phe Tyr Pro His Pro Leu Pro
1331          1140          1145          1150
1333 Ser Pro Gly Gly Val Leu Tyr Thr Trp Asp Phe Gly Asp Gly Ser Pro
1334          1155          1160          1165
1336 Val Leu Thr Gln Ser Gln Pro Ala Ala Asn His Thr Tyr Ala Ser Arg
1337          1170          1175          1180
1339 Gly Thr Tyr His Val Arg Leu Glu Val Asn Asn Thr Val Ser Gly Ala
E--> 1340 185 1190 1195 1200
1342 Ala Ala Gln Ala Asp Val Arg Val Phe Glu Glu Leu Arg Gly Leu Ser
1343          1205          1210          1215
1345 Val Asp Met Ser Leu Ala Val Glu Gln Gly Ala Pro Val Val Val Ser
1346          1220          1225          1230
1348 Ala Ala Val Gln Thr Gly Asp Asn Ile Thr Trp Thr Phe Asp Met Gly
1349          1235          1240          1245
1351 Asp Gly Thr Val Leu Ser Gly Pro Glu Ala Thr Val Glu His Val Tyr
1352          1250          1255          1260
1354 Leu Arg Ala Gln Asn Cys Thr Val Thr Val Gly Ala Gly Ser Pro Ala
E--> 1355 265 1270 1275 1280
1357 Gly His Leu Ala Arg Ser Leu His Val Leu Val Phe Val Leu Glu Val
1358          1285          1290          1295
1360 Leu Arg Val Glu Pro Ala Ala Cys Ile Pro Thr Gln Pro Asp Ala Arg
1361          1300          1305          1310
1363 Leu Thr Ala Tyr Val Thr Gly Asn Pro Ala His Tyr Leu Phe Asp Trp
1364          1315          1320          1325
1366 Thr Phe Gly Asp Gly Ser Ser Asn Thr Thr Val Arg Gly Cys Pro Thr
1367          1330          1335          1340
1369 Val Thr His Asn Phe Thr Arg Ser Gly Thr Phe Pro Leu Ala Leu Val
E--> 1370 345 1350 1355 1360
1372 Leu Ser Ser Arg Val Asn Arg Ala His Tyr Phe Thr Ser Ile Cys Val
1373          1365          1370          1375

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Input Set : A:\2919bseq.001

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1375 Glu Pro Glu Val Gly Asn Val Thr Leu Gln Pro Glu Arg Gln Phe Val
1376           1380           1385           1390
1378 Gln Leu Gly Asp Glu Ala Trp Leu Val Ala Cys Ala Trp Pro Pro Phe
1379           1395           1400           1405
1381 Pro Tyr Arg Tyr Thr Trp Asp Phe Gly Thr Glu Glu Ala Ala Pro Thr
1382           1410           1415           1420
1384 Arg Ala Arg Gly Pro Glu Val Thr Phe Ile Tyr Arg Asp Pro Gly Ser
E--> 1385 425           1430           1435           1440
1387 Tyr Leu Val Thr Val Thr Ala Ser Asn Asn Ile Ser Ala Ala Asn Asp
1388           1445           1450           1455
1390 Ser Ala Leu Val Glu Val Gln Glu Pro Val Leu Val Thr Ser Ile Lys
1391           1460           1465           1470
1393 Val Asn Gly Ser Leu Gly Leu Glu Leu Gln Gln Pro Tyr Leu Phe Ser
1394           1475           1480           1485
1396 Ala Val Gly Arg Gly Arg Pro Ala Ser Tyr Leu Trp Asp Leu Gly Asp
1397           1490           1495           1500
1399 Gly Gly Trp Leu Glu Gly Pro Glu Val Thr His Ala Tyr Asn Ser Thr
E--> 1400 505           1510           1515           1520
1402 Gly Asp Phe Thr Val Arg Val Ala Gly Trp Asn Glu Val Ser Arg Ser
1403           1525           1530           1535
1405 Glu Ala Trp Leu Asn Val Thr Val Lys Arg Arg Val Arg Gly Leu Val
1406           1540           1545           1550
1408 Val Asn Ala Ser Arg Thr Val Val Pro Leu Asn Gly Ser Val Ser Phe
1409           1555           1560           1565
1411 Ser Thr Ser Leu Glu Ala Gly Ser Asp Val Arg Tyr Ser Trp Val Leu
1412           1570           1575           1580
1414 Cys Asp Arg Cys Thr Pro Ile Pro Gly Gly Pro Thr Ile Ser Tyr Thr
E--> 1415 585           1590           1595           1600
1417 Phe Arg Ser Val Gly Thr Phe Asn Ile Ile Val Thr Ala Glu Asn Glu
1418           1605           1610           1615
1420 Val Gly Ser Ala Gln Asp Ser Ile Phe Val Tyr Val Leu Gln Leu Ile
1421           1620           1625           1630
1423 Glu Gly Leu Gln Val Val Gly Gly Gly Arg Tyr Phe Pro Thr Asn His
1424           1635           1640           1645
1426 Thr Val Gln Leu Gln Ala Val Val Arg Asp Gly Thr Asn Val Ser Tyr
1427           1650           1655           1660
1429 Ser Trp Thr Ala Trp Arg Asp Arg Gly Pro Ala Leu Ala Gly Ser Gly
E--> 1430 665           1670           1675           1680
1432 Lys Gly Phe Ser Leu Thr Val Leu Glu Ala Gly Thr Tyr His Val Gln
1433           1685           1690           1695
1435 Leu Arg Ala Thr Asn Met Leu Gly Ser Ala Trp Ala Asp Cys Thr Met
1436           1700           1705           1710
1438 Asp Phe Val Glu Pro Val Gly Trp Leu Met Val Ala Ala Ser Pro Asn
1439           1715           1720           1725
1441 Pro Ala Ala Val Asn Thr Ser Val Thr Leu Ser Ala Glu Leu Ala Gly
1442           1730           1735           1740
1444 Gly Ser Gly Val Val Tyr Thr Trp Ser Leu Glu Glu Gly Leu Ser Trp
E--> 1445 745           1750           1755           1760
1447 Glu Thr Ser Glu Pro Phe Thr Thr His Ser Phe Pro Thr Pro Gly Leu

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TIME: 15:01:59

Input Set : A:\2919bseq.001

Output Set: N:\CRF3\09262000\I479467A.raw

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1448      1765      1770      1775
1450 His Leu Val Thr Met Thr Ala Gly Asn Pro Leu Gly Ser Ala Asn Ala
1451      1780      1785      1790
1453 Thr Val Glu Val Asp Val Gln Val Pro Val Ser Gly Leu Ser Ile Arg
1454      1795      1800      1805
1456 Ala Ser Glu Pro Gly Gly Ser Phe Val Ala Ala Gly Ser Ser Val Pro
1457      1810      1815      1820
1459 Phe Trp Gly Gln Leu Ala Thr Gly Thr Asn Val Ser Trp Cys Trp Ala
E--> 1460 825      1830      1835      1840
1462 Val Pro Gly Gly Ser Ser Lys Arg Gly Pro His Val Thr Met Val Phe
1463      1845      1850      1855
1465 Pro Asp Ala Gly Thr Phe Ser Ile Arg Leu Asn Ala Ser Asn Ala Val
1466      1860      1865      1870
1468 Ser Trp Val Ser Ala Thr Tyr Asn Leu Thr Ala Glu Glu Pro Ile Val
1469      1875      1880      1885
1471 Gly Leu Val Leu Trp Ala Ser Ser Lys Val Val Ala Pro Gly Gln Leu
1472      1890      1895      1900
1474 Val His Phe Gln Ile Leu Ala Ala Gly Ser Ala Val Thr Phe Arg
1475 1905      1910      1915      1920
1477 Leu Gln Val Gly Gly Ala Asn Pro Glu Val Leu Pro Gly Pro Arg Phe
1478      1925      1930      1935
1480 Ser His Ser Phe Pro Arg Val Gly Asp His Val Val Ser Val Arg Gly
1481      1940      1945      1950
1483 Lys Asn His Val Ser Trp Ala Gln Ala Gln Val Arg Ile Val Val Leu
1484      1955      1960      1965
1486 Glu Ala Val Ser Gly Leu Gln Val Pro Asn Cys Cys Glu Pro Gly Ile
1487      1970      1975      1980
1489 Ala Thr Gly Thr Glu Arg Asn Phe Thr Ala Arg Val Gln Arg Gly Ser
E--> 1490 985      1990      1995      2000
1492 Arg Val Ala Tyr Ala Trp Tyr Phe Ser Leu Gln Lys Val Gln Gly Asp
1493      2005      2010      2015
1495 Ser Leu Val Ile Leu Ser Gly Arg Asp Val Thr Tyr Thr Pro Val Ala
1496      2020      2025      2030
1498 Ala Gly Leu Leu Glu Ile Gln Val Arg Ala Phe Asn Ala Leu Gly Ser
1499      2035      2040      2045
1501 Glu Asn Arg Thr Leu Val Leu Glu Val Gln Asp Ala Val Gln Tyr Val
1502      2050      2055      2060
1504 Ala Leu Gln Ser Gly Pro Cys Phe Thr Asn Arg Ser Ala Gln Phe Glu
E--> 1505 065      2070      2075      2080
1507 Ala Ala Thr Ser Pro Ser Pro Arg Arg Val Ala Tyr His Trp Asp Phe
1508      2085      2090      2095
1510 Gly Asp Gly Ser Pro Gly Gln Asp Thr Asp Glu Pro Arg Ala Glu His
1511      2100      2105      2110
1513 Ser Tyr Leu Arg Pro Gly Asp Tyr Arg Val Gln Val Asn Ala Ser Asn
1514      2115      2120      2125
1516 Leu Val Ser Phe Phe Val Ala Gln Ala Thr Val Thr Val Gln Val Leu
1517      2130      2135      2140
1519 Ala Cys Arg Glu Pro Glu Val Asp Val Val Leu Pro Leu Gln Val Leu
E--> 1520 145      2150      2155      2160

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1522 Met Arg Arg Ser Gln Arg Asn Tyr Leu Glu Ala His Val Asp Leu Arg
1523           2165           2170           2175
1525 Asp Cys Val Thr Tyr Gln Thr Glu Tyr Arg Trp Glu Val Tyr Arg Thr
1526           2180           2185           2190
1528 Ala Ser Cys Gln Arg Pro Gly Arg Pro Ala Arg Val Ala Leu Pro Gly
1529           2195           2200           2205
1531 Val Asp Val Ser Arg Pro Arg Leu Val Leu Pro Arg Leu Ala Leu Pro
1532           2210           2215           2220
1534 Val Gly His Tyr Cys Phe Val Phe Val Val Ser Phe Gly Asp Thr Pro
E--> 1535 225           2230           2235           2240
1537 Leu Thr Gln Ser Ile Gln Ala Asn Val Thr Val Ala Pro Glu Arg Leu
1538           2245           2250           2255
1540 Val Pro Ile Ile Glu Gly Gly Ser Tyr Arg Val Trp Ser Asp Thr Arg
1541           2260           2265           2270
1543 Asp Leu Val Leu Asp Gly Ser Glu Ser Tyr Asp Pro Asn Leu Glu Asp
1544           2275           2280           2285
1546 Gly Asp Gln Thr Pro Leu Ser Phe His Trp Ala Cys Val Ala Ser Thr
1547           2290           2295           2300
1549 Gln Arg Glu Ala Gly Gly Cys Ala Leu Asn Phe Gly Pro Arg Gly Ser
E--> 1550 305           2310           2315           2320
1552 Ser Thr Val Thr Ile Pro Arg Glu Arg Leu Ala Ala Gly Val Glu Tyr
1553           2325           2330           2335
1555 Thr Phe Ser Leu Thr Val Trp Lys Ala Gly Arg Lys Glu Glu Ala Thr
1556           2340           2345           2350
1558 Asn Gln Thr Val Leu Ile Arg Ser Gly Arg Val Pro Ile Val Ser Leu
1559           2355           2360           2365
1561 Glu Cys Val Ser Cys Lys Ala Gln Ala Val Tyr Glu Val Ser Arg Ser
1562           2370           2375           2380
1564 Ser Tyr Val Tyr Leu Glu Gly Arg Cys Leu Asn Cys Ser Ser Gly Ser
E--> 1565 385           2390           2395           2400
1567 Lys Arg Gly Arg Trp Ala Ala Arg Thr Phe Ser Asn Lys Thr Leu Val
1568           2405           2410           2415
1570 Leu Asp Glu Thr Thr Thr Ser Thr Gly Ser Ala Gly Met Arg Leu Val
1571           2420           2425           2430
1573 Leu Arg Arg Gly Val Leu Arg Asp Gly Glu Gly Tyr Thr Phe Thr Leu
1574           2435           2440           2445
1576 Thr Val Leu Gly Arg Ser Gly Glu Glu Glu Gly Cys Ala Ser Ile Arg
1577           2450           2455           2460
1579 Leu Ser Pro Asn Arg Pro Pro Leu Gly Gly Ser Cys Arg Leu Phe Pro
E--> 1580 465           2470           2475           2480
1582 Leu Gly Ala Val His Ala Leu Thr Thr Lys Val His Phe Glu Cys Thr
1583           2485           2490           2495
1585 Gly Trp His Asp Ala Glu Asp Ala Gly Ala Pro Leu Val Tyr Ala Leu
1586           2500           2505           2510
1588 Leu Leu Arg Arg Cys Arg Gln Gly His Cys Glu Glu Phe Cys Val Tyr
1589           2515           2520           2525
1591 Lys Gly Ser Leu Ser Ser Tyr Gly Ala Val Leu Pro Pro Gly Phe Arg
1592           2530           2535           2540
1594 Pro His Phe Glu Val Gly Leu Ala Val Val Val Gln Asp Gln Leu Gly

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E--> 1595 545                2550                2555                2560
1597 Ala Ala Val Val Ala Leu Asn Arg Ser Leu Ala Ile Thr Leu Pro Glu
1598                2565                2570                2575
1600 Pro Asn Gly Ser Ala Thr Gly Leu Thr Val Trp Leu His Gly Leu Thr
1601                2580                2585                2590
1603 Ala Ser Val Leu Pro Gly Leu Leu Arg Gln Ala Asp Pro Gln His Val
1604                2595                2600                2605
1606 Ile Glu Tyr Ser Leu Ala Leu Val Thr Val Leu Asn Glu Tyr Glu Arg
1607                2610                2615                2620
1609 Ala Leu Asp Val Ala Ala Glu Pro Lys His Glu Arg Gln His Arg Ala
E--> 1610 625                2630                2635                2640
1612 Gln Ile Arg Lys Asn Ile Thr Glu Thr Leu Val Ser Leu Arg Val His
1613                2645                2650                2655
1615 Thr Val Asp Asp Ile Gln Gln Ile Ala Ala Ala Leu Ala Gln Cys Met
1616                2660                2665                2670
1618 Gly Pro Ser Arg Glu Leu Val Cys Arg Ser Cys Leu Lys Gln Thr Leu
1619                2675                2680                2685
1621 His Lys Leu Glu Ala Met Met Leu Ile Leu Gln Ala Glu Thr Thr Ala
1622                2690                2695                2700
1624 Gly Thr Val Thr Pro Thr Ala Ile Gly Asp Ser Ile Leu Asn Ile Thr
E--> 1625 705                2710                2715                2720
1627 Gly Asp Leu Ile His Leu Ala Ser Ser Asp Val Arg Ala Pro Gln Pro
1628                2725                2730                2735
1630 Ser Glu Leu Gly Ala Glu Ser Pro Ser Arg Met Val Ala Ser Gln Ala
1631                2740                2745                2750
1633 Tyr Asn Leu Thr Ser Ala Leu Met Arg Ile Leu Met Arg Ser Arg Val
1634                2755                2760                2765
1636 Leu Asn Glu Glu Pro Leu Thr Leu Ala Gly Glu Glu Ile Val Ala Gln
1637                2770                2775                2780
1639 Gly Lys Arg Ser Asp Pro Arg Ser Leu Leu Cys Tyr Gly Gly Ala Pro
E--> 1640 785                2790                2795                2800
1642 Gly Pro Gly Cys His Phe Ser Ile Pro Glu Ala Phe Ser Gly Ala Leu
1643                2805                2810                2815
1645 Ala Asn Leu Ser Asp Val Val Gln Leu Ile Phe Leu Val Asp Ser Asn
1646                2820                2825                2830
1648 Pro Phe Pro Phe Gly Tyr Ile Ser Asn Tyr Thr Val Ser Thr Lys Val
1649                2835                2840                2845
1651 Ala Ser Met Ala Phe Gln Thr Gln Ala Gly Ala Gln Ile Pro Ile Glu
1652                2850                2855                2860
1654 Arg Leu Ala Ser Glu Arg Ala Ile Thr Val Lys Val Pro Asn Asn Ser
E--> 1655 865                2870                2875                2880
1657 Asp Trp Ala Ala Arg Gly His Arg Ser Ser Ala Asn Ser Ala Asn Ser
1658                2885                2890                2895
1660 Val Val Val Gln Pro Gln Ala Ser Val Gly Ala Val Val Thr Leu Asp
1661                2900                2905                2910
1663 Ser Ser Asn Pro Ala Ala Gly Leu His Leu Gln Leu Asn Tyr Thr Leu
1664                2915                2920                2925
1666 Leu Asp Gly His Tyr Leu Ser Glu Glu Pro Glu Pro Tyr Leu Ala Val
1667                2930                2935                2940

```

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Input Set : A:\2919bseq.001

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```

1669 Tyr Leu His Ser Glu Pro Arg Pro Asn Glu His Asn Cys Ser Ala Ser
E--> 1670 945          2950          2955          2960
1672 Arg Arg Ile Arg Pro Glu Ser Leu Gln Gly Ala Asp His Arg Pro Tyr
1673          2965          2970          2975
1675 Thr Phe Phe Ile Ser Pro Gly Ser Arg Asp Pro Ala Gly Ser Tyr His
1676          2980          2985          2990
1678 Leu Asn Leu Ser Ser His Phe Arg Trp Ser Ala Leu Gln Val Ser Val
1679          2995          3000          3005
1681 Gly Leu Tyr Thr Ser Leu Cys Gln Tyr Phe Ser Glu Glu Asp Met Val
1682          3010          3015          3020
1684 Trp Arg Thr Glu Gly Leu Leu Pro Leu Glu Glu Thr Ser Pro Arg Gln
E--> 1685 025          3030          3035          3040
1687 Ala Val Cys Leu Thr Arg His Leu Thr Ala Phe Gly Ala Ser Leu Phe
1688          3045          3050          3055
1690 Val Pro Pro Ser His Val Arg Phe Val Phe Pro Glu Pro Thr Ala Asp
1691          3060          3065          3070
1693 Val Asn Tyr Ile Val Met Leu Thr Cys Ala Val Cys Leu Val Thr Tyr
1694          3075          3080          3085
1696 Met Val Met Ala Ala Ile Leu His Lys Leu Asp Gln Leu Asp Ala Ser
1697          3090          3095          3100
1699 Arg Gly Arg Ala Ile Pro Phe Cys Gly Gln Arg Gly Arg Phe Lys Tyr
E--> 1700 105          3110          3115          3120
1702 Glu Ile Leu Val Lys Thr Gly Trp Gly Arg Gly Ser Gly Thr Thr Ala
1703          3125          3130          3135
1705 His Val Gly Ile Met Leu Tyr Gly Val Asp Ser Arg Ser Gly His Arg
1706          3140          3145          3150
1708 His Leu Asp Gly Asp Arg Ala Phe His Arg Asn Ser Leu Asp Ile Phe
1709          3155          3160          3165
1711 Arg Ile Ala Thr Pro His Ser Leu Gly Ser Val Trp Lys Ile Arg Val
1712          3170          3175          3180
1714 Trp His Asp Asn Lys Gly Leu Ser Pro Ala Trp Phe Leu Gln His Val
E--> 1715 185          3190          3195          3200
1717 Ile Val Arg Asp Leu Gln Thr Ala Arg Ser Ala Phe Phe Leu Val Asn
1718          3205          3210          3215
1720 Asp Trp Leu Ser Val Glu Thr Glu Ala Asn Gly Gly Leu Val Glu Lys
1721          3220          3225          3230
1723 Glu Val Leu Ala Ala Ser Asp Ala Ala Leu Leu Arg Phe Arg Arg Leu
1724          3235          3240          3245
1726 Leu Val Ala Glu Leu Gln Arg Gly Phe Phe Asp Lys His Ile Trp Leu
1727          3250          3255          3260
1729 Ser Ile Trp Asp Arg Pro Pro Arg Ser Arg Phe Thr Arg Ile Gln Arg
E--> 1730 265          3270          3275          3280
1732 Ala Thr Cys Cys Val Leu Leu Ile Cys Leu Phe Leu Gly Ala Asn Ala
1733          3285          3290          3295
1735 Val Trp Tyr Gly Ala Val Gly Asp Ser Ala Tyr Ser Thr Gly His Val
1736          3300          3305          3310
1738 Ser Arg Leu Ser Pro Leu Ser Val Asp Thr Val Ala Val Gly Leu Val
1739          3315          3320          3325
1741 Ser Ser Val Val Val Tyr Pro Val Tyr Leu Ala Ile Leu Phe Leu Phe

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TIME: 15:01:59

Input Set : A:\2919bseq.001

Output Set: N:\CRF3\09262000\I479467A.raw

```

1742      3330      3335      3340
1744 Arg Met Ser Arg Ser Lys Val Ala Gly Ser Pro Ser Pro Thr Pro Ala
E--> 1745 345      3350      3355      3360
1747 Gly Gln Gln Val Leu Asp Ile Asp Ser Cys Leu Asp Ser Ser Val Leu
1748      3365      3370      3375
1750 Asp Ser Ser Phe Leu Thr Phe Ser Gly Leu His Ala Glu Gln Ala Phe
1751      3380      3385      3390
1753 Val Gly Gln Met Lys Ser Asp Leu Phe Leu Asp Asp Ser Lys Ser Leu
1754      3395      3400      3405
1756 Val Cys Trp Pro Ser Gly Glu Gly Thr Leu Ser Trp Pro Asp Leu Leu
1757      3410      3415      3420
1759 Ser Asp Pro Ser Ile Val Gly Ser Asn Leu Arg Gln Leu Ala Arg Gly
E--> 1760 425      3430      3435      3440
1762 Gln Ala Gly His Gly Leu Gly Pro Glu Glu Asp Gly Phe Ser Leu Ala
1763      3445      3450      3455
1765 Ser Pro Tyr Ser Pro Ala Lys Ser Phe Ser Ala Ser Asp Glu Asp Leu
1766      3460      3465      3470
1768 Ile Gln Gln Val Leu Ala Glu Gly Val Ser Ser Pro Ala Pro Thr Gln
1769      3475      3480      3485
1771 Asp Thr His Met Glu Thr Asp Leu Leu Ser Ser Ser Ser Thr Pro
1772      3490      3495      3500
1774 Gly Glu Lys Thr Glu Thr Leu Ala Leu Gln Arg Leu Gly Glu Leu Gly
E--> 1775 505      3510      3515      3520
1777 Pro Pro Ser Pro Gly Leu Asn Trp Glu Gln Pro Gln Ala Ala Arg Leu
1778      3525      3530      3535
1780 Ser Arg Thr Gly Leu Val Glu Gly Leu Arg Lys Arg Leu Leu Pro Ala
1781      3540      3545      3550
1783 Trp Cys Ala Ser Leu Ala His Gly Leu Ser Leu Leu Leu Val Ala Val
1784      3555      3560      3565
1786 Ala Val Ala Val Ser Gly Trp Val Gly Ala Ser Phe Pro Pro Gly Val
1787      3570      3575      3580
1789 Ser Val Ala Trp Leu Leu Ser Ser Ser Ala Ser Phe Leu Ala Ser Phe
E--> 1790 585      3590      3595      3600
1792 Leu Gly Trp Glu Pro Leu Lys Val Leu Leu Glu Ala Leu Tyr Phe Ser
1793      3605      3610      3615
1795 Leu Val Ala Lys Arg Leu His Pro Asp Glu Asp Asp Thr Leu Val Glu
1796      3620      3625      3630
1798 Ser Pro Ala Val Thr Pro Val Ser Ala Arg Val Pro Arg Val Arg Pro
1799      3635      3640      3645
1801 Pro His Gly Phe Ala Leu Phe Leu Ala Lys Glu Glu Ala Arg Lys Val
1802      3650      3655      3660
1804 Lys Arg Leu His Gly Met Leu Arg Ser Leu Leu Val Tyr Met Leu Phe
E--> 1805 665      3670      3675      3680
1807 Leu Leu Val Thr Leu Leu Ala Ser Tyr Gly Asp Ala Ser Cys His Gly
1808      3685      3690      3695
1810 His Ala Tyr Arg Leu Gln Ser Ala Ile Lys Gln Glu Leu His Ser Arg
1811      3700      3705      3710
1813 Ala Phe Leu Ala Ile Thr Arg Ser Glu Glu Leu Trp Pro Trp Met Ala
1814      3715      3720      3725

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Input Set : A:\2919bseq.001

Output Set: N:\CRF3\09262000\I479467A.raw

```

1816 His Val Leu Leu Pro Tyr Val His Gly Asn Gln Ser Ser Pro Glu Leu
1817      3730      3735      3740
1819 Gly Pro Pro Arg Leu Arg Gln Val Arg Leu Gln Glu Ala Leu Tyr Pro
E--> 1820 745      3750      3755      3760
1822 Asp Pro Pro Gly Pro Arg Val His Thr Cys Ser Ala Ala Gly Gly Phe
1823      3765      3770      3775
1825 Ser Thr Ser Asp Tyr Asp Val Gly Trp Glu Ser Pro His Asn Gly Ser
1826      3780      3785      3790
1828 Gly Thr Trp Ala Tyr Ser Ala Pro Asp Leu Leu Gly Ala Trp Ser Trp
1829      3795      3800      3805
1831 Gly Ser Cys Ala Val Tyr Asp Ser Gly Gly Tyr Val Gln Glu Leu Gly
1832      3810      3815      3820
1834 Leu Ser Leu Glu Glu Ser Arg Asp Arg Leu Arg Phe Leu Gln Leu His
E--> 1835 825      3830      3835      3840
1837 Asn Trp Leu Asp Asn Arg Ser Arg Ala Val Phe Leu Glu Leu Thr Arg
1838      3845      3850      3855
1840 Tyr Ser Pro Ala Val Gly Leu His Ala Ala Val Thr Leu Arg Leu Glu
1841      3860      3865      3870
1843 Phe Pro Ala Ala Gly Arg Ala Leu Ala Ala Leu Ser Val Arg Pro Phe
1844      3875      3880      3885
1846 Ala Leu Arg Arg Leu Ser Ala Gly Leu Ser Leu Pro Leu Leu Thr Ser
1847      3890      3895      3900
1849 Val Cys Leu Leu Leu Phe Ala Val His Phe Ala Val Ala Glu Ala Arg
E--> 1850 905      3910      3915      3920
1852 Thr Trp His Arg Glu Gly Arg Trp Arg Val Leu Arg Leu Gly Ala Trp
1853      3925      3930      3935
1855 Ala Arg Trp Leu Leu Val Ala Leu Thr Ala Ala Thr Ala Leu Val Arg
1856      3940      3945      3950
1858 Leu Ala Gln Leu Gly Ala Ala Asp Arg Gln Trp Thr Arg Phe Val Arg
1859      3955      3960      3965
1861 Gly Arg Pro Arg Arg Phe Thr Ser Phe Asp Gln Val Ala His Val Ser
1862      3970      3975      3980
1864 Ser Ala Ala Arg Gly Leu Ala Ala Ser Leu Leu Phe Leu Leu Leu Val
E--> 1865 985      3990      3995      4000
1867 Lys Ala Ala Gln His Val Arg Phe Val Arg Gln Trp Ser Val Phe Gly
1868      4005      4010      4015
1870 Lys Thr Leu Cys Arg Ala Leu Pro Glu Leu Leu Gly Val Thr Leu Gly
1871      4020      4025      4030
1873 Leu Val Val Leu Gly Val Ala Tyr Ala Gln Leu Ala Ile Leu Leu Val
1874      4035      4040      4045
1876 Ser Ser Cys Val Asp Ser Leu Trp Ser Val Ala Gln Ala Leu Leu Val
1877      4050      4055      4060
1879 Leu Cys Pro Gly Thr Gly Leu Ser Thr Leu Cys Pro Ala Glu Ser Trp
E--> 1880 065      4070      4075      4080
1882 His Leu Ser Pro Leu Leu Cys Val Gly Leu Trp Ala Leu Arg Leu Trp
1883      4085      4090      4095
1885 Gly Ala Leu Arg Leu Gly Ala Val Ile Leu Arg Trp Arg Tyr His Ala
1886      4100      4105      4110
1888 Leu Arg Gly Glu Leu Tyr Arg Pro Ala Trp Glu Pro Gln Asp Tyr Glu

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RAW SEQUENCE LISTING

DATE: 09/26/2000

PATENT APPLICATION: US/09/479,467A

TIME: 15:01:59

Input Set : A:\2919bseq.001

Output Set: N:\CRF3\09262000\I479467A.raw

```

1889          4115          4120          4125
1891 Met Val Glu Leu Phe Leu Arg Arg Leu Arg Leu Trp Met Gly Leu Ser
1892          4130          4135          4140
1894 Lys Val Lys Glu Phe Arg His Lys Val Arg Phe Glu Gly Met Glu Pro
E--> 1895 145          4150          4155          4160
1897 Leu Pro Ser Arg Ser Ser Arg Gly Ser Lys Val Ser Pro Asp Val Pro
1898          4165          4170          4175
1900 Pro Pro Ser Ala Gly Ser Asp Ala Ser His Pro Ser Thr Ser Ser Ser
1901          4180          4185          4190
1903 Gln Leu Asp Gly Leu Ser Val Ser Leu Gly Arg Leu Gly Thr Arg Cys
1904          4195          4200          4205
1906 Glu Pro Glu Pro Ser Arg Leu Gln Ala Val Phe Glu Ala Leu Leu Thr
1907          4210          4215          4220
1909 Gln Phe Asp Arg Leu Asn Gln Ala Thr Glu Asp Val Tyr Gln Leu Glu
E--> 1910 225          4230          4235          4240
1912 Gln Gln Leu His Ser Leu Gln Gly Arg Arg Ser Ser Arg Ala Pro Ala
1913          4245          4250          4255
1915 Gly Ser Ser Arg Gly Pro Ser Pro Gly Leu Arg Pro Ala Leu Pro Ser
1916          4260          4265          4270
1918 Arg Leu Ala Arg Ala Ser Arg Gly Val Asp Leu Ala Thr Gly Pro Ser
1919          4275          4280          4285
1921 Arg Thr Pro Leu Arg Ala Lys Asn Lys Val His Pro Ser Ser Thr
1922          4290          4295          4300

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/479,467A

DATE: 09/26/2000

TIME: 15:02:00

Input Set : A:\2919bseq.001

Output Set: N:\CRF3\09262000\I479467A.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1310 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2
M:332 Repeated in SeqNo=2